

REMARKS/ARGUMENTS

By this Amendment, claims 1-3 have been amended and claim 7 has been added. Accordingly, claims 1-7 are pending in the present application.

The objection to claims 2 and 3 is noted. In response, both claims 2 and 3 have been amended so as to state "the dielectric filter". Accordingly, withdrawal of this objection is respectfully requested.

Claims 1-3 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 5,721,520 to McVeety, et al. in view of U.S. Patent No. 5,949,308 to Hino. Applicants respectfully traverse this rejection.

Among the limitations of independent claim 1 which are neither disclosed nor suggested in the prior art of record is a dielectric filter which includes, *inter alia*, a dielectric block having a plurality of conductive through holes which each have an open end along a first surface of the dielectric block and "a respective coupling electrode connected to each conductive through hole, each coupling electrode formed on the first surface of the dielectric block and extending at least to a first edge of the dielectric block, the respective coupling electrodes having a gap therebetween and generating a capacitance therebetween so as to couple the conductive through holes".

McVeety, et al. neither discloses nor suggests a dielectric filter having coupling electrodes located on the same surface as an open end of the conductive through holes. As stated in McVeety at column 3, lines 4-11, the top surface of the dielectric filter is substantially uncoated. The metalized coupling pad 602 shown in Figure 6 is only present on the side surface of the dielectric filter. The metalized coupling pad 602 does not, in any manner, extend onto the uncoated top surface 14 of the dielectric filter of McVeety, et al. In addition, McVeety, et al. only discloses one coupling electrode 602 and not a respective coupling electrode for each conductive through hole and a gap between the respective coupling electrodes.

Hino does not remedy any of the deficiencies of McVeety, et al. As described at column 4, lines 20-24 of Hino, the top surface of the dielectric block having the apertures of the resonant conductors is devoid of any electrodes. In addition, the capacitive electrodes 13a and 13b do not extend to an edge of the dielectric block as required by independent claim 1.

Therefore, even if one were to combine the teachings of McVeety, et al. and Hino, one would not arrive at the present invention defined in independent claim 1 because neither McVeety, et al. nor Hino, either alone or combined, teach or suggest providing spaced apart coupling electrodes on the surface of the dielectric block having the open end of the conductive through holes, let alone extending the coupling electrodes to an edge of the dielectric block. In fact, inasmuch as McVeety, et al. and Hino teach that the surface of the dielectric block having the openings for the conductive through holes does not have any electrode thereon, and they specifically teach that the coupling electrode should be placed only on the side surface of the dielectric block, these references teach away from the present invention as defined in independent claim 1. Accordingly, it is respectfully submitted that independent claim 1 patentably distinguishes over the art of record.

Claims 2 and 3 depend directly from independent claim 1 and include all of the limitations found therein. Each of these dependent claims include additional limitations which, in combination with the limitations of independent claim 1, are neither disclosed nor suggested in the prior or record. Accordingly, claims 2 and 3 are likewise patentable.

Claims 4-6 stand rejected under 35 U.S.C. §103(a) as being unpatentable over McVeety, et al. as modified by Hino, and further in view of U.S. Patent No. 6,351,198 to Tsukamoto, et al. Applicants respectfully traverse this rejection.

As described above, neither McVeety, et al., nor Hino, either alone or combined, teach or suggest coupling electrodes separated by a gap and located on the surface of the dielectric block having the open ends of the conductive through holes.

Applicants respectfully submit that the use of Tsukamoto, et al. as a reference is improper. Effective November 29, 1999, 35 U.S.C. §103(c) provides a subject matter developed by another which qualifies as prior art only under one or more of subsections 35 U.S.C. §102(e), (f) and (g) is not to be considered when determining whether an invention sought to be patented is obvious under §103, provided the subject matter and the claimed invention were commonly owned at the time the invention was made or subject to an obligation of assignment to the same person.

Tsukamoto, et al. is a patent which is assigned to the Murata Manufacturing Co., Ltd. The present application is also assigned to the Murata Manufacturing Co., Ltd. Tsukamoto, et al. has a filing date prior to that of the present application and an issue date after the filing date of the present application. Thus, Tsukamoto, et al. is a §102(e) reference and should not be considered by the Examiner in determining obviousness of the present application under §103.

However, even if Tsukamoto, et al. were a proper reference, it is respectfully submitted that its teachings do not cure the deficiencies of McVeety, et al. and Hino described above. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim 7 has been added to more fully cover the scope of the present invention. Consideration and allowance of claim 7 is respectfully requested.

The prior art made of record and not relied upon has been carefully reviewed. It is believed that these references, either alone or combined with any other references of record, do not render the pending claims unpatentable.

In view of the foregoing, favorable consideration of the amendments to claims 1-3, favorable consideration of new claim 7, and allowance of the application with claims 1-7 is respectfully and earnestly solicited.

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Respectfully submitted,

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Appendix A**Version With Markings to Show Changes Made****Claims:**

1. (Amended) A dielectric filter comprising:
 - a [substantially rectangular parallelepiped] dielectric block; [having]
 - a plurality of [inner-conductor-formed] conductive through holes arranged in the dielectric block, each of the conductive through holes having a open end along a first surface of the dielectric block [therein, inner conductors being disposed on the inner surfaces of the holes];
 - a respective coupling electrode [electrodes] connected to each conductive through hole, each coupling electrode formed on [an outer] the first surface of the dielectric block and extended at least to [an] a first edge of the dielectric block [at which an opening surface of the dielectric block containing open ends of the inner-conductor-formed holes joins a side surface of the dielectric block which is arranged parallel to a direction in which the holes are aligned, the coupling electrodes being connected to the inner conductors], the respective coupling electrodes having a gap therebetween and generating a capacitance therebetween so as to couple [said inner conductors] the plurality of conductive through holes; and
 - an outer conductor arranged on outer surfaces of the dielectric block.
2. (Amended) [A] The dielectric filter according to Claim 1, wherein [said] the coupling electrodes further extend onto [said side] a second surface of [said] the dielectric block which intersects the first edge of the dielectric block.
3. (Amended) [A] The dielectric filter according to [one of Claims] Claim 1 [and 2], further comprising input/output electrodes arranged on a second [side] surface of the dielectric block [opposing said side surface] and extending from a second edge, opposing [said] the first edge, to generate capacitances between the open ends [end portions] of the [inner conductors] conductive through holes and the input/output electrodes.